

**MINUTES OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ORISSA HELD ON 6<sup>th</sup> & 7<sup>th</sup> DECEMBER, 2010**

The meeting of State Level Expert Appraisal Committee, Orissa was held on 6<sup>TH</sup> & 7<sup>TH</sup> December, 2010 in the Conference Hall of Orissa State Pollution Control Board, Bhubaneswar at 11.00 AM. Dr. Gagan Bihari Nityananda Chainy, Chairman, SEAC Orissa chaired the meeting. The following members were present in the meeting.

1.	Dr. Gagan Bihari Nityananda Chainy	-	Chairman
2.	Professor (Dr.) Swoyam Prakash Rout	-	Member
3.	Dr. Harekrishna Nayak,	-	Member
4.	Dr. Moheshwar Patra,	-	Member
5.	Sri Sasanka Sekhar Pattnaik,	-	Member
6.	Prof. Kumar Das	-	Member
7.	Dr. R.C. Mohanty,	-	Member
8.	Dr. Surendra Nath Das,	-	Member

1. The minutes of previous meeting held during November 19-20, 2010 were confirmed by the members.
2. Next meeting of the committee would be held on 15<sup>th</sup> & 16<sup>th</sup> December, 2010 for finalization of minutes of the meeting held on 30<sup>th</sup> November, 2010, 6<sup>th</sup> & 7<sup>th</sup> December, 2010, consideration of old proposals and screening of new proposals.
3. The committee observed that SEIAA, Orissa is forwarding proposals on final appraisal for EC, for which TORs have been issued by MoEF, Govt. of India for EIA study. It was decided to request SEIAA to forward the original applications submitted to MoEF Govt. of India by the project proponents while forwarding proposals for final appraisal.
4. SEAC is receiving many proposals from the project proponents regarding the permission of CGWB for drawal of ground water where project proponents are furnishing blanket sanction of the CGWB on the plea that the area falls under safe zone. The SEIAA should bring this serious issue to the notice of the CGWB Regional and National authorities as well as the Water Resources Dept., Govt. of Orissa. SEIAA is also requested to take necessary steps to prohibit usage of ground water for construction and industrial activities.

SECRETARY, SEAC

5. SEIAA has forwarded half yearly environmental monitoring reports of the projects which have obtained environmental clearance from SEIAA and requested for review and assessment of such compliance report of SEAC. The committee felt that as per the EIA Notification, 2006 Para 10(ii) such tasks are not within the purview of the SEAC. So it was decided to return such proposals to SEIAA.

Nine project proponents were invited for presentation of TOR and Environmental Clearance. The agenda-wise proceedings and recommendations of the committee are detailed below:

**ITEM NO 1 :**

**FINAL APPRAISAL FOR EC OF MANMORA MANGANESE MINES OF M/s. TATA STEEL LTD. FOR PRODUCTION OF 12000 TPA MANGANESE ORE, AT-JODA OVER ML AREA 16.35 Ha IN THE DISTRICT OF KEONJHAR**

The proposal is for production of 12,000 TPA Manganese ore from Manmora Manganese Mine over a lease area of 16.35ha, which is a part of the existing Joda East Iron mine (JEIM) of M/s. TATA Steel with a total leasehold area of 671.093ha. The proponent has also applied for use of the mined out pit for storing slimes generated from their existing iron ore beneficiation plant. The TOR was issued by MoEF in Nov. 2008 based on which the EIA/EMP reports were submitted. The mine has obtained Forest Clearance and Consent to operate till March 2011.

It was clarified during the presentation that the proponent has already exhausted the mineable manganese ore reserve of the Manmora Manganese Mine and are presently interested in slime storage and thereby reclaim a part of the mined out pit. The facts and figures presented shows that they had a residual reserve of 18,867T of mineable manganese ore in April, 2008, which they wanted to mine at a rate of 12,000TPA and so the expected life was 2 years. The proposed slime storage pond [dim. 430m (L) X 150 to 270m (W) X 77m (D)] is going to cover a surface area of 6.46ha to store 1.5 million m<sup>3</sup> of slime to a depth of 33m in four years period. About 50% of the pit circumference is proposed to be built with 0.4 million m<sup>3</sup> of OB material to a height of 35m. M/s. WAPCOS, a Govt. of India undertaking, has provided the designs and has carried out permeability test of the soil.

Considering the information furnished and presentation made by **the consultant, M/s S.S Environics (India) Pvt. Ltd, Bhubaneswar**, clarifications furnished in response to queries and keeping documents submitted in view, the Committee observed the following:\*

SECRETARY, SEAC

1. The proposal was submitted with dual objectives of extension of lease for the **Manmora Manganese Mine** and use a part of it for storing iron ore slimes and their present objective is only in storage of slimes having exhausted the mineable manganese ore, the application should accordingly be modified. Moreover, the TOR issued by the MoEF was in response to their application of extension of lease, which can not be held valid for the dual objectives now proposed, though it is aimed at reclamation of a part of the mined out pit due to its additional environmental implications. It needs verification of the original application submitted by the Proponent to the MoEF for ToR.

It was therefore decided to request the SEIAA for forwarding the original application of the Proponent submitted to MoEF, Govt. of India.

## **ITEM NO – 2**

### **FINAL APPRAISAL FOR EC OF M/s. ACRUX REALCON (P) LTD. FOR RESIDENTIAL HOUSING PROJECT AT GOTHAPATANA IN THE DISTRICT OF KHURDA HAVING TOTAL BUILT-UP AREA 108,709.915 SQ.M.**

The proposal is for construction of 1062 residential units in 12 blocks (S+5 - 6 blocks & G+5 – 6 blocks) of 18m maximum height from the ground level. The building plan is approved by the local BDO since it falls just outside BDA jurisdiction. The total land area is 59,751 m<sup>2</sup> with 18,347.7 m<sup>2</sup> ground coverage and 108,709.916 m<sup>2</sup> built-up area. Occupancy at a rate of 4.5 persons per unit (as per standard norms) with service personnel would amount to (4779+service persons) ~5,000 persons. Since it is a housing project, the proponent's presentation was for final appraisal for EC.

Considering the information furnished and presentation made by **the** consultant M/s Centre For Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar of the project proponent, clarifications furnished in response to queries and documents submitted in view, the Committee observed the following:

1. The plan and other structural drawings for the high-rise building meant to house ~5000 persons were not properly examined from technical view point apparently due to lack of competent persons at the block level. Authenticated signature and stamps are missing on the drawings. Structural sufficiency certificate as per NBC is also not furnished.
2. It is stated that cement consumption up to 40% will to be reduced by the use of fly ash in concrete. But the source of fly ash and tie-up with brick manufacturers and structural safety may be certified by the competent authority, especially when up to 40% cement is proposed to be replaced by fly ash in RCC which seems to be structurally unsafe.

SECRETARY, SEAC

3. Ground water is proposed to be used during construction phase ( $30-50,000\text{m}^3/\text{day}$ ), which is ruled out when standard conditions laid out by the CGWB such as conducting a hydrological survey by an authorized expert to assess GW etc. The Water Resource Dept, Govt. of Orissa should also be approached for permission. Similarly, ground water withdrawal at the rate of  $910\text{m}^3/\text{day}$  initially and  $547\text{m}^3/\text{day}$  continuously throughout the occupancy can not be permitted. The proponent is required to intimate the alternative source like water tanker etc. in construction phase.
4. The technical expert of the supplier of STP presented details of the proposed plant. It has essential features but the primary treatment after equalizer is aerobic treatment in a sequencing batch reactor (SBR). The Committee was very critical of the proposed STP, especially in view of the huge quantity of sewage ( $652\text{m}^3/\text{day}$ ) having a mixture of grey discharges, oil and grease from kitchen and car wash with inappropriate technology having no oil or grease removal or any kind of biological treatment. Further, such water is proposed to be reused in the main circuit to an extent of  $363\text{m}^3/\text{day}$  for dust suppression and landscaping. Final disposal of the sludge is also not specified. In absence of authenticated documents certifying its workability under existing conditions and complete analysis including biological parameters of the input and output water under repeated recirculation, the Committee rejected the process as inappropriate and wanted the proponent to adopt either of the following measures:
  - a) Use municipal sewerage line for sewage disposal and approach the concerned authorities for extending line from the nearest existing point, if the plot does not have the line.
  - b) Adopt STP treatment with three stages of treatment including biological one of appropriate size and modern technology. It should be backed up by independent grey and normal water supply as well as collection lines and each one treated separately depending on their contamination and end use demands.
5. The water balance shows a huge amount of water to be used for dust suppression ( $40\text{m}^3/\text{day}$ ), horticulture ( $60\text{m}^3/\text{day}$ ) and car washing ( $10\text{m}^3/\text{day}$ ). Once the roads are topped with concrete or pitch, the use of water for dust suppression shall be reduced. Similarly, use of water in landscaping will be reduced after a few initial years and during monsoon. A realistic estimate may be made to reduce pressure on STP and water source.
6. Organic solid waste generated during occupancy is proposed to be composted in a biogas plant and the solid residue is proposed to be used as manure. There is no specification of the biogas plant or space provided for. Use of the generated biogas is also not mentioned.
7. Method of disposing off of the inorganic solid wastes generated ( $2,336.4\text{ kg}/\text{day}$ ) is also uncertain since the area is not under BMC or there is no agreement with a certified agency. Since the area is not under BMC limits, the load should not be brought into the

SECRETARY, SEAC

already overloaded municipal area and instead should be disposed off out side in a safe manner.

8. Storm water management through drainage into a nearby nala, which joins Nuagaon nala far away, should be discouraged. Alternatively, appropriate treatment and storage may be adopted for use in horticulture or dust suppression in view of water scarcity.

After receiving the above clarifications, the proposal will be reconsidered in a future meeting.

### **ITEM NO.3**

#### **FINAL APPRAISAL FOR EC OF ORAGHAT IRON & MANGANESE MINES OF M/s. SYED ABDUL HALIM AT ORAGHAT FOR PRODUCTION OF IRON ORE OF CAPACITY 72,864 TPA AND MANGANESE ORE 7563 TPA OVER AN AREA 25.847 HA AT ORAGHAT , DIST – SUNDARGARH .**

The proposal is for production of iron ore of capacity 72,864 TPA and Manganese ore 7563 TPA. The mine lease area is 25.847 ha .The mine has also applied for one mobile crushing unit of 50 TPH capacity. The mining lease comprise DLC Forest land – 5.880 Ha. Mine working will be opencast semi-mechanized involving drilling and blasting.. The ultimate size of iron ore pit is 159365 m<sup>2</sup> and Manganese ore is 3652 m<sup>2</sup>. The mining scheme for the proposed production capacity for the year 2008-09 to 2012-13 is approved by IBM vide letter dated 29.12.08. The life of the mine will be 6 years for iron ore and 5 years for manganese ore. The public hearing was conducted on **28.04.2010** .

Considering the information furnished and presentation made by the consultant M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar, clarifications furnished in response to queries and documents submitted, the committee decided to consider environmental clearance for the proposal after getting following information/document from the project proponent

1. The elephant corridor stated to be at a distance of 7.4 km from the project site should be certified by the Chief Wildlife Warden. An authenticated detailed biological survey of flora and fauna may be produced for the 10km radius of buffer zone.
2. The reason for which the mine was closed and the present lease status may be indicated.
3. Since the life of the mine is said to be 5-6 years , mine closure plan including pit refilling schedule over the conceptual period as approved by IBM may be submitted. Mine filling with 2,68,600m<sup>3</sup> of OB over 60,230m<sup>2</sup> area would amount to a height of 4.45m whereas

SECRETARY, SEAC

the pit depth is much more .The proponent has to clarify the approval of the above by IBM.

4. An area of 36,807m<sup>2</sup> of the dumps and 26,210m<sup>2</sup> of the benches (3-6m wide) are proposed to be planted though plantation has not started yet. It might take much longer to stabilize the soil with grass and lower plant species before actual plantation starts. Detailed plan with the species and survival rate may be provided.
5. The stripping ratio with respect to low grade ores is increasing with time. This may be justified.
6. So far only 0.07ha of lease hold area is planted while 6.308ha is going to be planted within the next 5-6 years. The plantation area with details and funds allocation may be given.
7. The AAQ modeling presented is not up to mark since detailed fall outs of SPM/RSPM are not properly delineated.
8. The mine water is being pumped out for which the rate of pumping and its quality with treatment, if any and end use is not mentioned.
9. The drainage pattern shows water flowing in the opposite direction to Suna nala. Management of excess water and storm water may be given.
10. Details of the 50TPH mobile crusher unit and its detailed pollution control measures may be furnished.

The proposal will be reconsidered after receiving the above clarifications.

#### **ITEM NO. 4**

#### **SCOPING FOR M/S. KASHIPUR MANGANESE ORE MINES FOR PRODUCTION OF MANGANESE ORE 1030 MTPA OVER AN AREA OF 21.622 HA. AT VILLAGE KASHIPUR, DIST – RAYAGADA (TOR)**

The proposal was considered by the SEAC to determine the Terms of Reference (TOR) for detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA notification, 2006. The project proponent had submitted information in the prescribed format (Form-I) along with pre-feasibility report.. The proposal is for the production of manganese ore 1030 MTPA over an area of 21.622 ha. at village Kashipur. The mining plan is already approved by IBM.

Considering the information furnished and presentation made by **the consultant M/s Centre For Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar**, the SEAC prescribed the following TORs for undertaking detailed EIA study:

#### **1. Introduction**

SECRETARY, SEAC

- Profile of the project proponent and background to establish the financial and entrepreneurial competency to undertake the project.
- Genesis and objectives of the project.
- Brief description of nature, size, location of the project and its need and importance to the region and country's economic development and end use/value addition (if any) of the mined minerals.
- Past performance records including environmental protection measures for existing industries seeking expansion.
- Status and stage of regulatory clearances like approval of mining plan, forestry clearance and other statutory clearances (water use) essential before starting mining activities.
- Litigation / court case, if any, pending relating to the project.

## 2. **Project Description**

- A site map to 1:50,000 scale, presenting project location and recent features of the area (core zone and buffer zone) with the help of satellite imagery (NRSA) showing relevant details like habitation, forest, water bodies, drainage pattern including contours at not more than 15 meters scale, heritage sites, and environmentally sensitive objects and areas such as, reserve / protected forest, national park, sanctuary, biosphere reserve, elephant / tiger sanctuaries / migrating corridors etc.
- Mining area dimensions, year wise mining plan, production of over burden (OB) and OB dump sites, conceptual mine plan for every five years period for the life of mine, mine closure plan and production capacity both present and planned, land use pattern.

### **Details of Mining**

Estimation of probable/estimated mineral reserves, Method of Mining, proposed working depths, proposed manpower, employment product size and reduction if any sound pollution due to mining activities, blasting control measures, OB solid waste with quantity and angle of repose, authenticated ground water contour plan (both pre and post monsoon), impact of mining on hydrology of core and buffer zones intersecting ground water level & optimal utilization/value addition utilization of the associated minerals, steps to ensure through beneficiation process.

## 3. **Air Environment (for Core and Buffer Zone)**

### a) **Baseline Status**

- Climate and Metrological baseline data obtained from the nearest IMD station for the area (core and buffer zone).
- Location (distance and direction) of monitoring stations considering environmentally / ecologically sensitive areas.

- Climatological data in respect of temperature, humidity, wind speed and direction, wind rose and rainfall for the study period (03 months non-monsoon season).
- Air pollutants such as : SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub>, CO traces of heavy metals (Fe, Mn, Pb) etc. in core and buffer zone as per CPCB specifications (NAAQS).
- Existing and expected fugitive emissions in and around the area of mining transport, stacking, ore processing/ beneficiation and their impact on flora and fauna of the region.
- Impact of fugitive emissions on flora and fauna.

**b) Anticipated Impacts**

- Prediction of impacts on ambient air quality using appropriate mathematical models (ISCST or FDM models).
- Existing air quality data and prediction of emissions of SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub>, CO to be presented in tabular form.

Sl. No	Location of Monitoring station (Name, Distance & Directions)	Background level	Predicted concentration	Resultant concentration	Air quality standard

**c) Proposed Mitigating Measures**

- Mitigating measures to lower the emissions of pollutants and to maintain the air quality.
- Mitigating measures to contain impact of fugitive emissions on flora and fauna.
- Scientific ore mining/ handling/transport methods to reduce the dust emissions from point and other likely sources.

**4. Noise Environment**

**a) Baseline Status**

- Day time and night time noise levels.
- Noise levels, i.e. Leq.(day) and Leq.(night) for each station in core zone and buffer zone along with applicable standards.
- Noise levels due to mining activities, ore processing units, beneficiation plant and transportation routes separately.
- Vibrations caused due to blasting operations.



- Locations of monitoring stations in accordance with direction and distance from the source preferably at the same air quality monitoring sites.

**b) Anticipated Impacts**

- Impacts of vibrations on the surrounding environment including damage to materials and structures.
- Impacts due to noise levels generated by existing and proposed activities in relation to human environment and wild life including avi-fauna.
- Impacts due to present and future surface transportation activities by road/rail / conveyor belt, if any.
- Impact of noise levels an auditory function, i.e. hearing activity.

**c) Proposed Mitigating Measures**

- Identification and adoption of mitigating measures for noise abatement including noise barriers for point sources and line sources; Regular maintenance of machineries/vehicles for noise reduction.
- Measures to minimize effect of vibration due to blasting.
- Evaluation of adequacy of the proposed pollution control devices periodically to minimize occupational exposure and to suggest modifications, if any, as a continuous process.

**5. Water Environment**

**a) Baseline Status:**

- Rainfall, runoff and sedimentation data from nearby reputed institution including IMD station should be collected.
- Details of existing water bodies like rivers, nallahs, lakes, springs and reservoirs etc. within core and buffer zones and likely to be changes in drainage pattern created due to mining.
- Physico-chemical, biological, bacteriological and radiological characterization of surface and ground water both upstream and downstream with reference to mining lease area.
- Authenticated ground water level of the area and if mining will be intersecting ground water, indicate radius of influence from the mine pit.
- The source of water is mentioned as Kandabindhana nala. It may be justified whether it is a perennial water source.
- The storm water collected in the lease area should be stored and used in dry periods rather than let out into the environment which is likely to contaminate outside soil.

- Ground water recharge potential including rain water harvesting, recharge and water balance of the area for present and future use.
- Water requirement and waste water production from mine lease area, mining township, ore processing and beneficiation plants and other facilities.
- Waste water treatment, recycling and reuse of effluent.

**b) Anticipated Impacts:**

- Impact on water sources due to shifting of water courses, if any.
- Impact of water withdrawal on surface water / ground water.
- Impact of mining on hydrology with special reference to a situation when mining will intersect ground water.
- Impact on withdrawal of surface / ground water below the threshold level of replenishment.
- Impact of mining activities including tailing ponds on surface and ground water quality.

**c) Proposed Mitigating Measures**

- Model study for prediction of ground water contamination and suggested mitigating measures to minimize the pollution level.
- Construction of gully checks, check dams, sedimentation ponds, settling tanks, water retaining walls and weirs, subsequent treatment and recycle.
- Management of waste water sources, viz. industries, workshop, township etc. to contain the adverse impact on water resources in core and buffer zones.
- Details of mitigation steps to contain adverse impacts on water table in case of mining intersecting ground water.
- Construction of rain water harvesting structures and treatment before recharge/reuse to maintain the water level.
- Steps to make use of the existing water bodies and water bodies likely to be created as a result of mining activity both in core and buffer zones by fishiculture, irrigation and recreational facilities.

**6. Land Environment**

**a) Baseline Status**

- Collection of soil samples from monitoring stations, their textures, physico-chemical and micro biological characterization, water holding capacity, porosity, toxic contaminants and sodium absorption ratio (SAR) for both core and buffer zone.

- Study of pre-mining land use pattern, cropping pattern, vegetation cover etc. using remote sensing techniques (if available) and ground truthing and through secondary data sources.
- Determination of leaching properties of OB samples to define the load of heavy metal pollutants on run off water.

**b) Anticipated Impacts**

- Estimation of anticipated impacts of proposed mining activity on topography, water drainage pattern, land use pattern with respect to agriculture, forestry and fisheries.
- Impact of leachate water from overburden on surface and ground water quality.
- Impact of mining activity on the fertility status of soil in the study area.
- Prediction of ground water pollution due to seepage of pollutants through soil column.
- Impact of mining on local biodiversity and forest cover.

**c) Proposed Mitigating Measures**

- Scientific mining methods to mitigate the impacts of mining activity on land resource.
- Delineation of mine closure plan to rehabilitate the mined out land to restore its earlier land use pattern.
- Model study for potential soil erosion from core and buffer zones for planning preventive measures.
- Methods for treatment and disposal of domestic solid wastes.
- Selection of suitable local plant species for green belt development in and around mine sites, ore processing plant and beneficiation plant and also an overburden dump sites and workers colony.
- Top soil conservation plan and its reutilization depending on its quality.

**7. Biological Environment :**

**a) Baseline Status**

- Biodiversity (terrestrial and aquatic).
- Assessment of plant species with respect to dominance, density, frequency and abundance within the study area.
- Collection of primary data through field survey and authenticated secondary data on fauna including avi-fauna indicating endangered and endemic species, if any, with scientific and local name as per the schedule of Wild Life (protection) Act.

- Information on the dependence of the local people on minor forest produce and their cattle grazing rights in the forest land.
- Collection of secondary data on fishery, agriculture, crops and irrigation facility in the study area.
- Existence of National Park, Sanctuary, Biosphere Reserve, Tiger/Elephant Reserve migratory corridor in the study area / buffer zone to be shown in the site map.
- Estimation of number and types of trees and shrubs which would be cut during deforestation for mining activity and other facility.
- Photographs showing vegetation cover before and after mining in case of ongoing mining activities and existing vegetation in case of new mine.

**b) Anticipated Impacts :**

- Impact of mining activities on forest resources, terrestrial and aquatic biodiversity, wildlife including avi-fauna, migratory corridors, endangered species and important and medicinal plants.
- Assessment of likely damage to flora and fauna due to air emissions, noise and vibrations, vehicular movements, waste water discharges, and change in land use pattern.

**c) Proposed Mitigating Measures :**

- Afforestation greenbelt development of reclaimed mined out areas, composite of grass, shrubs and trees of native variety.
- Stabilization of mining benches and overburdens by development of vegetation cover over them.
- Scientific conservation plan for protection and conservation of flora, fauna including endangered species of the area.
- Delineation and implementation of pollution control measures with respect to air emissions, noise and vibrations, vehicular movements and waste water discharges etc. impacting biotic environment.

**8. Socio – Economic Environment :**

**a) Baseline Status :**

- Demographic survey and collection of baseline data on human settlement, health and education status of the community and existing infrastructural facilities for social welfare including sources of livelihood job opportunities, agriculture and forest products etc. of the area (Core Zone and Buffer Zone).
- Socio economic profile of the people within 2,5 and 10 kms of buffer zone.

**b) Anticipated Impacts :**

- Impacts of the mining activities on the cropping pattern and crop productivity within 2km of the core zone on the sources of livelihood and land holding of the people, on the cattle grazing lands and access to the roads frequented by them and possible migration/displacement of people.

**c) Proposed Mitigating Measures**

- Corporate Social Responsibility (CSR) should not be treated only as philanthropy, rather it should be the corporate mission and individual social responsibility of the project proponent. They should be a partner in the regional development
- Mitigating measures should take into account the needs of the people of the area based on primary data as obtained through Need Assessment Survey / Study (NAS). Certain welfare schemes can be dovetailed with identical / related/ similar schemes being executed by various Govt. departments / agencies in the area.
- Adequate compensation should be given to the people for loss of land / loss of crops / loss of surface rights due to mining activities.
- Details of employment potential – skilled, semi-skilled and un-skilled.

**9 Occupational Health Environment**

**a) Baseline Status**

- Primary / secondary data through field survey of the existing prevalent diseases in the locality and facilities for treatment.
- Number of likely hazardous operations/ jobs / activities to be identified and the number of workers to be employed in such jobs and the duration to be indicated.

**b) Anticipated Impacts**

- The list of anticipated occupational diseases due to hazardous exposures, such as silicosis, tuberculosis, pulmonary and lungs diseases etc. to be indicated.

**c) Proposed Mitigating Measures**

- Education and training to the workers about their safety and various occupational health risks and to ensure the use of personal protective equipments and steps for prevention and control of risks.
- Employment of trained doctors in occupational health risks and arrangement of referral facilities for the mine workers.
- Responsibility to compensate the workers for health impairment due to injuries or illness and provision for health insurance for the mine workers.
- Adequate budget provision for environmental and occupational health hazardous.

10. **Additional Studies**

- Public consultation (during EIA study as well as public hearing) with the issues raised by the public and response of the project proponent to be given in tabular form.
- Risk assessment and disaster management plan to be prepared. Risk assessment should be done covering the aspects, such as roof – fall inside the mine, surface subsidence, inundation, failure of mine benches, surface fire, accidents due to explosives, earth moving machinery and blasting etc.

11. **Environment Management Plan (EMP) and Post-Project Monitoring Programme**

- Description of the administrative and technical set-up, i.e. EMP implementation organizational structure for ensuring that mitigative measures are implemented and their effectiveness monitored after obtaining environmental clearance from the State Level Environmental Impact Assessment Authority (SEIAA).
- Environment management plan of the mining lease area on 1:50,000 scale within 500 meters of the boundary and contour lines at 10 meters intervals, indicating all surface features, area occupied by mine workings, area deforested, area covered by dumps (with height), processing plant, surface buildings, mining workshop, area reclaimed and afforested and course of discharge of mine water.
- Post project hydro-geological monitoring for entire mine life, restrictive monitoring thereafter during reclamation for collection of hydro-geological and hydrological data.
- Plantation monitoring programme during post-project period for ensuring survival and growth rate of plantations in reclaimed area.
- Delineation of technical aspects of environmental monitoring to examine the effectiveness of the adopted EMP and scientific mining measures (including measurement methodologies, frequency, location, data analysis, reporting schedules emergency procedures, detailed budget and procurement schedules) and to take corrective steps, if necessary.

12. **Executive Summary / Summary EIA**

The executive summary shall consist of gist of all relevant details chapter-wise of the EIA report and EMP. The executive summary will give a prima-facie idea about the objectives of the project, ore/OB to be generated and end use/value addition, anticipated environmental impacts of the project activities on ambient air, water land, noise and bio-diversity their impacts and mitigating measures thereto, socio-economic aspects of the area and corporate social responsibility (CSR) and Environment Management Plan (EMP). It should be co-related to the details given in EIA report and EMP. It should be precise and self sufficient and condensed to ten A-4 size pages at the maximum.

**This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformation to the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).**

## **ITEM NO. 5**

### **SCOPING FOR M/S. RAIKA IRON & MANGANESE OF SHIV DUTTA SHARMA FOR PRODUCTION OF IRON ORE 1 LAKH TPA AND MANGANESE ORE 100 MTPA OVER AN AREA OF 14.621 Ha. AT RAIKA, DIST - KEONJHAR (TOR)**

The proposal was considered by the SEAC to determine the Terms of Reference (TOR) for detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA notification, 2006. The project proponent had submitted information in the prescribed format (Form-I) along with pre-feasibility report.. The proposal is for the production of 1,00,000TPA iron ore and 1,000TPA manganese ore with crushing and screening over a leasehold area of 26.243 ha. They had applied to MoEF for TOR, which is redirected to SEIAA. Forest diversion for 14.621ha of (Thakurani Reserve Forest) is under process. The mining plan is already approved by IBM.

Considering the information furnished and presentation made by the consultant M/s R.K CONSULTANTS, the SEAC prescribed the following TORs for undertaking detailed EIA study

#### **1. Introduction**

- Profile of the project proponent and background to establish the financial and entrepreneurial competency to undertake the project.
- Genesis and objectives of the project.
- Brief description of nature, size, location of the project and its need and importance to the region and country's economic development and end use/value addition (if any) of the mined minerals.
- Past performance records including environmental protection measures for existing industries seeking expansion.

SECRETARY, SEAC

- Status and stage of regulatory clearances like approval of mining plan, forestry clearance and other statutory clearances (water use) essential before starting mining activities.
- Litigation / court case, if any, pending relating to the project.

## 2. **Project Description**

- A site map to 1:50,000 scale, presenting project location and recent features of the area (core zone and buffer zone) with the help of satellite imagery (NRSA) showing relevant details like habitation, forest, water bodies, drainage pattern including contours at not more than 15 meters scale, heritage sites, and environmentally sensitive objects and areas such as, reserve / protected forest, national park, sanctuary, biosphere reserve, elephant / tiger sanctuaries / migrating corridors etc.
- Mining area dimensions, year wise mining plan, production of over burden (OB) and OB dump sites, conceptual mine plan for every five years period for the life of mine, mine closure plan and production capacity both present and planned, land use pattern.
- Year-wise production during the deemed lease period till closure may be enumerated.
- Actual mining is proposed to be limited to 12.2ha while 5.12ha will be planted besides the non-use area. The total area to be planted may be specified.
- Simultaneous back filling in de-mineralised area is proposed to be undertaken to return most of the ML area to pre-mining land use pattern, which may be detailed as per progressive mine closure plan approved by IBM.

### **Details of Mining**

Estimation of probable/estimated mineral reserves, Method of Mining, proposed working depths, proposed manpower, employment product size and reduction if any sound pollution due to mining activities, blasting control measures, OB solid waste with quantity and angle of repose, authenticated ground water contour plan (both pre and post monsoon), impact of mining on hydrology of core and buffer zones intersecting ground water level & optimal utilization/value addition utilization of the associated minerals, steps to ensure through beneficiation process.

## 3. **Air Environment (for Core and Buffer Zone)**

### a) **Baseline Status**

- Climate and Metrological baseline data obtained from the nearest IMD station for the area (core and buffer zone).
- Location (distance and direction) of monitoring stations considering environmentally / ecologically sensitive areas.



- Climatological data in respect of temperature, humidity, wind speed and direction, wind rose and rainfall for the study period (03 months non-monsoon season).
- Air pollutants such as : SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub>, CO traces of heavy metals (Fe, Mn, Pb) etc. in core and buffer zone as per CPCB specifications (NAAQS).
- Existing and expected fugitive emissions in and around the area of mining transport, stacking, ore processing/ beneficiation and their impact on flora and fauna of the region.
- Impact of fugitive emissions on flora and fauna.

**b) Anticipated Impacts**

- Prediction of impacts on ambient air quality using appropriate mathematical models (ISCST or FDM models).
- Existing air quality data and prediction of emissions of SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub>, CO to be presented in tabular form.

Sl. No	Location of Monitoring station (Name, Distance & Directions)	Background level	Predicted concentration	Resultant concentration	Air quality standard

**c) Proposed Mitigating Measures**

- Mitigating measures to lower the emissions of pollutants and to maintain the air quality.
- Mitigating measures to contain impact of fugitive emissions on flora and fauna.
- Scientific ore mining/ handling/transport methods to reduce the dust emissions from point and other likely sources.

**4. Noise Environment**

**a) Baseline Status**

- Day time and night time noise levels.
- Noise levels, i.e. Leq.(day) and Leq.(night) for each station in core zone and buffer zone along with applicable standards.
- Noise levels due to mining activities, ore processing units, beneficiation plant and transportation routes separately.

- Vibrations caused due to blasting operations.
- Locations of monitoring stations in accordance with direction and distance from the source preferably at the same air quality monitoring sites.

**b) Anticipated Impacts**

- Impacts of vibrations on the surrounding environment including damage to materials and structures.
- Impacts due to noise levels generated by existing and proposed activities in relation to human environment and wild life including avi-fauna.
- Impacts due to present and future surface transportation activities by road/rail / conveyer belt, if any.
- Impact of noise levels an auditory function, i.e. hearing activity.

**c) Proposed Mitigating Measures**

- Identification and adoption of mitigating measures for noise abatement including noise barriers for point sources and line sources; Regular maintenance of machineries/vehicles for noise reduction.
- Measures to minimize effect of vibration due to blasting.
- Evaluation of adequacy of the proposed pollution control devices periodically to minimize occupational exposure and to suggest modifications, if any, as a continuous process.

**5. Water Environment**

**a) Baseline Status:**

- Rainfall, runoff and sedimentation data from nearby reputed institution including IMD station should be collected.
- Details of existing water bodies like rivers, nallahs, lakes, springs and reservoirs etc. within core and buffer zones and likely to be changes in drainage pattern created due to mining.
- Physico-chemical, biological, bacteriological and radiological characterization of surface and ground water both upstream and downstream with reference to mining lease area.
- Authenticated ground water level of the area and if mining will be intersecting ground water, indicate radius of influence from the mine pit.

- The water requirement is stated to be 30m<sup>3</sup>/day, it is likely to be much more since dust suppression, plantation and social use for 272 employees would require more water . A realistic estimate may be provided.
- The source of water is stated to be ponds, dug and bore wells. The natural pond in southern part of the ML area reserves rainwater but is dry most of the time as stated. Permission to draw ground water is pending with CGWB. The exact source with quantitative details of water source and necessary permission from the concerned authority may be produced.
- Ground water recharge potential including rain water harvesting, recharge and water balance of the area for present and future use.
- Water requirement and waste water production from mine lease area, mining township, ore processing and beneficiation plants and other facilities.
- Waste water treatment, recycling and reuse of effluent.

**b) Anticipated Impacts:**

- Impact on water sources due to shifting of water courses, if any.
- Impact of water withdrawal on surface water / ground water.
- Impact of mining on hydrology with special reference to a situation when mining will intersect ground water.
- Impact on withdrawal of surface / ground water below the threshold level of replenishment.
- Impact of mining activities including tailing ponds on surface and ground water quality.

**c) Proposed Mitigating Measures**

- Model study for prediction of ground water contamination and suggested mitigating measures to minimize the pollution level.
- Construction of gully checks, check dams, sedimentation ponds, settling tanks, water retaining walls and weirs, subsequent treatment and recycle.
- Management of waste water sources, viz. industries, workshop, township etc. to contain the adverse impact on water resources in core and buffer zones.
- Details of mitigation steps to contain adverse impacts on water table in case of mining intersecting ground water.
- Construction of rain water harvesting structures and treatment before recharge/reuse to maintain the water level.

- Steps to make use of the existing water bodies and water bodies likely to be created as a result of mining activity both in core and buffer zones by fishiculture, irrigation and recreational facilities.

## 6. **Land Environment**

### a) Baseline Status

- Collection of soil samples from monitoring stations, their textures, physico-chemical and micro biological characterization, water holding capacity, porosity, toxic contaminants and sodium absorption ratio (SAR) for both core and buffer zone.
- Study of pre-mining land use pattern, cropping pattern, vegetation cover etc. using remote sensing techniques (if available) and ground truthing and through secondary data sources.
- Determination of leaching properties of OB samples to define the load of heavy metal pollutants on run off water.

### b) **Anticipated Impacts**

- Estimation of anticipated impacts of proposed mining activity on topography, water drainage pattern, land use pattern with respect to agriculture, forestry and fisheries.
- Impact of leachate water from overburden on surface and ground water quality.
- Impact of mining activity on the fertility status of soil in the study area.
- Prediction of ground water pollution due to seepage of pollutants through soil column.
- Impact of mining on local biodiversity and forest cover.

### c) **Proposed Mitigating Measures**

- Scientific mining methods to mitigate the impacts of mining activity on land resource.
- Delineation of mine closure plan to rehabilitate the mined out land to restore its earlier land use pattern.
- Model study for potential soil erosion from core and buffer zones for planning preventive measures.
- Methods for treatment and disposal of domestic solid wastes.
- Selection of suitable local plant species for green belt development in and around mine sites, ore processing plant and beneficiation plant and also an overburden dump sites and workers colony.
- Top soil conservation plan and its reutilization depending on its quality.

## 7. **Biological Environment :**

### a) **Baseline Status**

- Biodiversity (terrestrial and aquatic).
- Assessment of plant species with respect to dominance, density, frequency and abundance within the study area.
- Collection of primary data through field survey and authenticated secondary data on fauna including avi-fauna indicating endangered and endemic species, if any, with scientific and local name as per the schedule of Wild Life (protection) Act.
- Information on the dependence of the local people on minor forest produce and their cattle grazing rights in the forest land.
- Collection of secondary data on fishery, agriculture, crops and irrigation facility in the study area.
- Existence of National Park, Sanctuary, Biosphere Reserve, Tiger/Elephant Reserve migratory corridor in the study area / buffer zone to be shown in the site map.
- Estimation of number and types of trees and shrubs which would be cut during deforestation for mining activity and other facility.
- Photographs showing vegetation cover before and after mining in case of ongoing mining activities and existing vegetation in case of new mine.

**b) Anticipated Impacts :**

- Impact of mining activities on forest resources, terrestrial and aquatic biodiversity, wildlife including avi-fauna, migratory corridors, endangered species and important and medicinal plants.
- Assessment of likely damage to flora and fauna due to air emissions, noise and vibrations, vehicular movements, waste water discharges, and change in land use pattern.

**c) Proposed Mitigating Measures :**

- Afforestation greenbelt development of reclaimed mined out areas, composite of grass, shrubs and trees of native variety.
- Stabilization of mining benches and overburdens by development of vegetation cover over them.
- Scientific conservation plan for protection and conservation of flora, fauna including endangered species of the area.
- Delineation and implementation of pollution control measures with respect to air emissions, noise and vibrations, vehicular movements and waste water discharges etc. impacting biotic environment.

**8. Socio – Economic Environment :**

**a) Baseline Status :**

- Demographic survey and collection of baseline data on human settlement, health and education status of the community and existing infrastructural facilities for social welfare including sources of livelihood job opportunities, agriculture and forest products etc. of the area (Core Zone and Buffer Zone).
- Socio economic profile of the people within 2,5 and 10 kms of buffer zone.

**b) Anticipated Impacts :**

- Impacts of the mining activities on the cropping pattern and crop productivity within 2km of the core zone on the sources of livelihood and land holding of the people, on the cattle grazing lands and access to the roads frequented by them and possible migration/displacement of people.

**c) Proposed Mitigating Measures**

- Corporate Social Responsibility (CSR) should not be treated only as philanthropy, rather it should be the corporate mission and individual social responsibility of the project proponent. They should be a partner in the regional development
- Mitigating measures should take into account the needs of the people of the area based on primary data as obtained through Need Assessment Survey / Study (NAS). Certain welfare schemes can be dovetailed with identical / related/ similar schemes being executed by various Govt. departments / agencies in the area.
- Adequate compensation should be given to the people for loss of land / loss of crops / loss of surface rights due to mining activities.
- Details of employment potential – skilled, semi-skilled and un-skilled.

**9 Occupational Health Environment**

**a) Baseline Status**

- Primary / secondary data through field survey of the existing prevalent diseases in the locality and facilities for treatment.
- Number of likely hazardous operations/ jobs / activities to be identified and the number of workers to be employed in such jobs and the duration to be indicated.

**b) Anticipated Impacts**

- The list of anticipated occupational diseases due to hazardous exposures, such as silicosis, tuberculosis, pulmonary and lungs diseases etc. to be indicated.

**c) Proposed Mitigating Measures**

- Education and training to the workers about their safety and various occupational health risks and to ensure the use of personal protective equipments and steps for prevention and control of risks.
- Employment of trained doctors in occupational health risks and arrangement of referral facilities for the mine workers.
- Responsibility to compensate the workers for health impairment due to injuries or illness and provision for health insurance for the mine workers.
- Adequate budget provision for environmental and occupational health hazardous.

10. **Additional Studies**

- Public consultation (during EIA study as well as public hearing) with the issues raised by the public and response of the project proponent to be given in tabular form.
- Risk assessment and disaster management plan to be prepared. Risk assessment should be done covering the aspects, such as roof – fall inside the mine, surface subsidence, inundation, failure of mine benches, surface fire, accidents due to explosives, earth moving machinery and blasting etc.

11. **Environment Management Plan (EMP) and Post-Project Monitoring Programme**

- Description of the administrative and technical set-up, i.e. EMP implementation organizational structure for ensuring that mitigative measures are implemented and their effectiveness monitored after obtaining environmental clearance from the State Level Environmental Impact Assessment Authority (SEIAA).
- Environment management plan of the mining lease area on 1:50,000 scale within 500 meters of the boundary and contour lines at 10 meters intervals, indicating all surface features, area occupied by mine workings, area deforested, area covered by dumps (with height), processing plant, surface buildings, mining workshop, area reclaimed and afforested and course of discharge of mine water.
- Post project hydro-geological monitoring for entire mine life, restrictive monitoring thereafter during reclamation for collection of hydro-geological and hydrological data.
- Plantation monitoring programme during post-project period for ensuring survival and growth rate of plantations in reclaimed area.
- Delineation of technical aspects of environmental monitoring to examine the effectiveness of the adopted EMP and scientific mining measures (including measurement methodologies, frequency, location, data analysis, reporting schedules emergency procedures, detailed budget and procurement schedules) and to take corrective steps, if necessary.

12. **Executive Summary / Summary EIA**

The executive summary shall consist of gist of all relevant details chapter-wise of the EIA report and EMP. The executive summary will give a prima-facie idea about the objectives of the project, ore/OB to be generated and end use/value addition, anticipated environmental impacts of the project activities on ambient air, water land, noise and bio-diversity their impacts and mitigating measures thereto, socio-economic aspects of the area and corporate social responsibility (CSR) and Environment Management Plan (EMP). It should be co-related to the details given in EIA report and EMP. It should be precise and self sufficient and condensed to ten A-4 size pages at the maximum.

**This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformation to the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).**

#### **ITEM NO. 6**

#### **FINAL APPRAISAL FOR EC FOR M/S. ULTRA MINERALS & FERRO ALLOYS PVT. LTD FOR CHROME ORE BENEFICIATION PLANT AT NISCHINTA, DIST – CUTTACK (EC).**

The proponent proposes to put up a chrome ore beneficiation plant of 36,000TPA capacity on 0.9ha of agriculture land already acquired. It is situated at a distance of 500m from the NH-5. 3,200TPM of low grade chrome ore to be procured from Sukinda will be processed to produce 24,000TPA marketable product. The tailing of 12,000 TPA will be stored in their plant premises. 237KLD water is required in the process and the source is ground water. The proposal has obtained ToR on 18<sup>th</sup> July 2008 vide letter no. No. J -11015/1166/2007-IA.II (M), Government of India, Ministry of Environment and Forests (I. A. Division - II), New Delhi. The public consultation of the project was held on 31.1.10

Considering the information furnished and presentation made by the consultant Environmental Research & Services (I) Pvt. Ltd., Bhubaneswar, clarifications furnished in response to queries and documents submitted, the committee observed the following

The Committee has serious concerns on the issue of putting up of chrome beneficiation plant on a prime land due to the following concerns:

1. The plant is located in a plot hardly 500m away from the busy Highway and surrounded by agricultural fields and villages. It is a prime land and so far not contaminated with toxic heavy metals like Cr and particularly, Cr(VI), which is a genotoxic proven carcinogen. The proponent is interested to put up the plant due to his convenience of land availability. The Committee has deliberated on this issue in the past and has come

SECRETARY, SEAC



to conclude that prime agricultural or other village land should not be allowed to get contaminated with genotoxic carcinogens like Cr(VI), which is known for its notoriety.

2. The semi-solid waste generated can not be completely free from water although a part of the supernatant water can be recycled in the process. Past experience in a number of cases in the State has been bitter due to leakage of toxic Cr(VI) containing water beyond project premises and contaminating water bodies, soil and drinking water sources. Efforts to contain the seepage/ leakage have failed and most of the units are closed. But the problem is still nagging for the last few decades.
3. Therefore, the proponent is advised to put up the plant at a convenient place near the source of raw materials, e.g., Sukinda valley, which is already contaminated with this toxic metal.

Besides this, the following points to be clarified by the proponent:

1. The process including raw material handling is mechanized or semi-mechanized is not clear. The supplier of technology and its operational responsibility on a team of trained technicians and workers should be ensured.
2. The exact source of raw materials and analysis is not mentioned.
3. Ground water withdrawal application to the tune of 250KLD is pending with CGWB.
4. The recycled water after around 5 reuses in the beneficiation circuit is likely to contain very high concentrations of Cr(VI), even to the tune of >100ppm while the limits are 0.05ppm. Efforts in the past have failed to reduce the Cr(VI) content to allowable limits but failed and the cost is prohibitive. The proponent can shed light on this point.
5. It is proposed to procure raw materials of -20mm size, which is not powdery as stated in the proposal. The crushing and sieving circuit to the required size for beneficiation, even if kept dry, would produce SPM and RSPM having Chromite particles toxic for workers and nearby villagers. Attempts to contain with water sprays would slowly contaminate the ground.

**In view of the serious objections, the Committee has decided to return the proposal in its present form to the SEIAA. The Committee also request the SEIAA to take up this serious policy issue with the appropriate authorities in the State Govt. and decide further course of action since a number of chrome ore beneficiation plants have been considered with due diligence and rejected in the past and new proposals are likely to be placed, which would be a sheer wastage of time and effort on the part of proponents.**

**ITEM NO. 7**

SECRETARY, SEAC

**EC FOR CONSTRUCTION OF HOUSING PROJECT “TAMARIND TERRACE”  
RESIDENTIAL APARTMENT OF M/S. ARYANS INFRASTRUCTURE PVT. LTD AT -  
CHANDRASEKHARPUR, BHUBANESWAR**

The proposal is a residential apartment at Chandrasekharpur, Bhubanesar, Odisha. Total plot area is 1,178,802.9 sqm, built up area is 184080.6 sqm. and ground coverage area is 65651.2 sqm. The total makeup water requirement is 135 KLD. The water requirement will be met from PHED supply. Around 108KLD of waste water will be generated, which will be treated in a Sewage Treatment Plant (STP). Treated water will be re-used for dual flushing, green belt and landscaping. Total solid waste generation will be 0.8 TPD. The case was placed in the SEAC meeting held on 19-20 July, 2010 . The SEAC decided to consider environmental clearance for the proposal after getting certain information/documents from the project proponent.

Considering the compliance furnished by the unit and presentation made by **the consultant M/s Global Experts Pvt. Ltd., Bhubaneswar**, clarifications furnished in response to queries and documents submitted, the Committee opined that the following additional information/documents may be furnished.

The duly approved BDA plan has not been produced so far including the structural stability certificate etc. as required under NBC of India. During a visit of the SEAC team earlier, it was found that the construction of buildings over the plot has started and was going on in full swing. To a query by the members, the proponent clarified that they need not have the EC since they are proceeding as per BDA approved plan up to 8<sup>th</sup> floor. But the present application is for B+S+12 floors. The matter may be brought to the notice of the Appropriate Authority for initiating action as required under MoEF notification.

However, considering the presentation made twice and documents placed, the Committee observed the following:

1. Conditions laid out in the conditional approval of BDA dated May 05, 2010 have not been met yet. For example, construction of storm water drain and construction of 60' wide road (under construction).
2. The Executive Engineer PHD-III vide his letter dated 12.12.09 had requested to deposit a specified sum to take up laying of water supply pipeline from their existing point of supply so that the proponent can draw the required amount of water during construction and operation phases. This has not been done. On the other hand, the proponent is using ground water without due permission during construction in contravention of rules.

SECRETARY, SEAC

3. The consultant presented plan and technical details of the STP proposed to treat nearly 100KLD water. The treatment involves both aerobic and FAB mediated microbial treatment followed by chlorination. The same technology has been in operation at the Apollo Hospitals, Bhubaneswar and the Members of the Committee have already paid a visit. Highlights of their observations are as follows:
  - a. The first stage screen is not working and is out of operation for quite some time. The sewage is directly pumped into the primary treatment tank where air bubbling is done. This would put all the insoluble materials into the flow stream.
  - b. The solid media put into FAB pieces in the secondary treatment process are meant for growth of the natural bacterial flora.
  - c. No sludge comes out after microbial treatment. The filter-press (manual) is not working.

After receiving the above clarifications, the proposal will be reconsidered in a future meeting.

#### **ITEM NO. 8**

#### **MANITIRUMALA APARTMENTS RESIDENTIAL COMPLEX PROMOTED BY ALL ORISSA STATE BANK OFFICERS HOUSING COOPERATIVE SOCIETY LTD., BHUBANESWAR. AT PLOT NO.21, MOUZA: KALARAHANGA, NANDANA KANANA ROAD, BHUBANESWAR, ORISSA**

The proposal is a residential complex promoted by All Orissa State Bank Officers Housing Cooperative Society Ltd., Bhubaneswar at Plot No.21, Mouza: Kalarahanga, Nandana Kanana Road, Bhubaneswar, Orissa. There will be 11 blocks of G+14 storied buildings; a total of 603 flats in which 3,317 persons are likely to reside. It has provision for a Club House in which 302 persons can be accommodated at a time.. Total Plot Area is 41075.2 Sq,M . Total built up area is 76050.80 sq.m. The total makeup water requirement is 307.5 KLD. The water requirement will be met from municipal supplies. Around 428.165 KLD of waste water will be generated which will be treated in a Sewage Treatment Plant (STP). Treated water will be re-used for dual flushing, green belt and landscaping and 168.9 KLD will be discharged to municipal sewer. Total solid waste generation will be 1.5 TPD. The power requirement is 3938 KW. The building is completely residential in nature. Bhubaneswar Development Authority has approved the building plan and drawings.

The case was

SECRETARY, SEAC

Considering the presentation made by **the consultant M/s EHS Consultant Pvt. Ltd., Bangalore**, clarifications furnished in response to earlier query and documents submitted, the Committee opined that certain clarifications, have been found to be not satisfactory. The issues are:

1. The plinth level of the building complex should be above the adjacent Nandan Kanan road level. The BDA has also stipulated this condition in their approval. The modified drainage pattern should be also shown
2. Use of 40m<sup>3</sup>/day of water during construction phase is proposed. Use of ground water during construction phase is not tenable since there is no recharge. Water in tankers or PHD connection may be used.
3. PHD water should be used during operational phase since daily intake of water is stated to be 428.2m<sup>3</sup>. Necessary permission may be obtained from CGWB as well as the Dept of Water Resource, Govt. of Orissa.

Further, on perusal of the facts mentioned in Form-1A, it was found that the floral and faunal description/displacement shows description of flora fauna found in southern/eastern Orissa and Chilika Lake respectively, which is impertinent to the project site. Simply stating that there will not be any displacement does not qualify consideration. Similarly, the air quality data presented are not up to mark without a fall out map of at least the SPM and RSPM.

**So the Proponent is advised to modify these particular portions of the Form and resubmit with proper data within two weeks from the date of issue of letter intimating the required details. A final decision will be taken thereafter since the proposal has been delayed considerably because the Proponent has been furnishing irrelevant and inappropriate answers to the points raised in the past.**

#### **ITEM NO. 9**

#### **PROPOSAL OF M/S. KAVITA AGRAWAL FOR PRODUCTION OF MANGANESE ORE 36000 TPA OVER AN AREA OF 47.486 HA AT KUSUMDIHI, SUNDARGARH (TOR):**

The proponent intimated that the proposed project site is in close proximity to the State Boundary for which the project falls under Category "A" as per General Conditions mentioned in EIA Notification' 2006. Hence, the project needs to be withdrawn from State Environment Impact Assessment Authority for subsequent application for Environmental Clearance at MoEF, New Delhi.

The committee decided to delist the proposal and return the documents to SEIAA.

SECRETARY, SEAC

**DR. GAGAN BIHARI NITYANANDA CHAINY)**  
**CHAIRMAN, SEAC**

**(DR. SWOYAM PRAKASH ROUT)**  
**MEMBER, SEAC**

**( DR. HAREKRISHNA NAYAK)**  
**MEMBER, SEAC**

**(DR. MOHESHWAR PATRA)**  
**MEMBER, SEAC**

**(SRI SASANKA SEKHAR PATNAIK)**  
**MEMBER, SEAC**

**(PROF. KUMAR DAS)**  
**MEMBER, SEAC**

**( DR. R. C. MOHANTY)**  
**MEMBER, SEAC**

**(SRI. S. DAS )**  
**SECRETARY, SEAC**

SECRETARY, SEAC